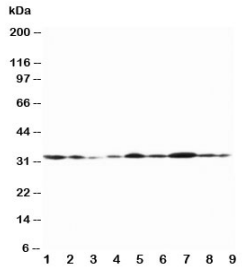
Connexin 32 Antibody / Cx32 Antibody (R30436)

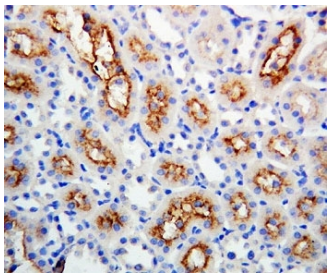
Catalog No.	Formulation	Size
R30436	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

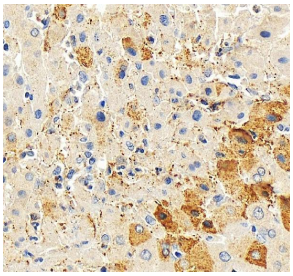
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P08034
Localization	Cell surface, cytoplasmic
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-2ug/ml
Limitations	This Connexin 32 Antibody / Cx32 Antibody is available for research use only.



Connexin 32 Antibody Human, Rat and Mouse WB. Western blot testing of rat heart (lanes 1-4), human MCF-7 (lane 5), HeLa (lane 6), SMMC-7721 (lane 7), Jurkat (lane 8), and COLO320 (lane 9) lysates using Connexin 32 antibody detected a prominent band at approximately 32 kDa, consistent with the predicted molecular weight of Connexin 32. Rat samples included heart (lanes 1 and 2), skeletal muscle (lane 3), and brain (lane 4). The consistent detection across multiple tissues and cell lines reflects the widespread expression of Connexin 32 in excitable and epithelial tissues. This Connexin 32 Antibody, also called a Cx32 Antibody, is suitable for studies of gap junction biology, intercellular communication, peripheral neuropathy, and liver physiology.



Connexin 32 Antibody Rat Kidney IHC. Immunohistochemical staining of rat kidney tissue with Connexin 32 antibody demonstrated strong membranous and cytoplasmic staining of renal tubular epithelial cells, consistent with the localization of Connexin 32 at gap junctions within the kidney. The distinct membrane-associated staining pattern highlights regions of cell-cell contact where gap junction channels facilitate intercellular communication. This Connexin 32 Antibody, also called a Cx32 Antibody, is useful for investigating gap junction biology, epithelial cell communication, renal physiology, and tissue-specific connexin expression.



Connexin 32 Antibody Human Liver IHC. Immunohistochemical staining of FFPE human liver tissue using Connexin 32 antibody demonstrated predominantly membranous and cytoplasmic staining of hepatocytes, consistent with the localization of Connexin 32 in hepatic gap junctions that mediate direct intercellular communication. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to staining. Tissue sections were blocked with 10% goat serum and incubated with the primary antibody (2 ug/ml) overnight at 4Â°C, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody. Immunoreactivity was visualized using an HRP Super Vision detection system with DAB as the chromogen. This Connexin 32 Antibody, also called a Cx32 Antibody, is useful for investigating gap junction biology, hepatocyte communication, liver physiology, and diseases associated with altered intercellular signaling.

Description

Connexin 32 Antibody / Cx32 Antibody recognizes Connexin 32 (Cx32), also known as Gap Junction Beta 1 (GJB1), a member of the connexin family that forms gap junction channels facilitating direct communication between neighboring cells. Six Connexin 32 molecules assemble into a connexon, or hemichannel, which docks with a connexon on an adjacent cell to create a complete gap junction channel. These channels permit the passage of ions, metabolites, and small signaling molecules, enabling coordinated cellular responses that are essential for tissue homeostasis, growth, differentiation, and electrical and metabolic coupling. Connexin 32 is widely expressed in the liver, peripheral nervous system, pancreas, kidney, and other epithelial tissues where efficient intercellular communication is required.

Within the peripheral nervous system, Connexin 32 is highly expressed by myelinating Schwann cells, where it forms gap junctions that facilitate radial diffusion of ions and small metabolites across the layers of the myelin sheath. This function is critical for maintaining axonal support and normal peripheral nerve conduction. Mutations in the GJB1 gene are the primary cause of X-linked Charcot-Marie-Tooth disease type 1, one of the most common inherited peripheral neuropathies. Disease-associated variants disrupt gap junction assembly, intracellular trafficking, or channel function, leading to progressive demyelination, muscle weakness, and sensory deficits. Consequently, Connexin 32 has become an important research target in studies of inherited neuropathies and peripheral nerve biology.

Connexin 32 also plays essential roles outside the nervous system. In hepatocytes, it is the predominant connexin responsible for gap junction communication and contributes to coordinated liver metabolism, regeneration, and responses to toxic injury. Altered expression or localization of Connexin 32 has been reported in liver disease, hepatocellular carcinoma, pancreatic disorders, and several epithelial cancers, where impaired gap junction communication may promote tumor progression. In addition, Connexin 32 participates in tissue development, wound repair, and cellular responses to oxidative stress and inflammation, making it a valuable biomarker for investigations of gap junction physiology and disease mechanisms.

Because Connexin 32 expression and channel assembly are tightly regulated by phosphorylation, membrane trafficking, and protein turnover, studies frequently examine its localization alongside other connexins and junctional proteins to better understand tissue-specific communication networks. A Connexin 32 Antibody is a valuable research tool for investigating gap junction biology, peripheral neuropathies, liver physiology, epithelial cell communication, and diseases associated with altered intercellular signaling.

Explore additional antibodies for cancer biology and cell-cell communication on our Cancer Marker Antibodies page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Connexin 32 Antibody / Cx32 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human Connexin 32/GJB1 (RACARRAQRRSNPPSRK) was used as the immunogen for this Connexin 32 antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the Connexin 32 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Connexin 32 antibody, GJB1 antibody, Gap Junction Beta 1 antibody, Gap Junction Protein Beta 1 antibody, CX32 antibody, Cx32 Gap Junction Protein antibody

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